

ABSTRACT OF THE DISCLOSURE

An electric drill apparatus having a low profile is provided which comprises an annular cutter, a motor for rotating the annular cutter, a rotary shaft assembly for rotating the annular cutter attached to its leading end about a rotating, a rotation reduction mechanism disposed between the motor and rotary shaft assembly for transmitting a driving force of the motor to the annular cutter through the rotary shaft assembly, a feed mechanism responsive to an operation of a manual handle, for moving the rotary shaft assembly along with a straight line to advance or retract the annular cutter attached to the rotary shaft assembly with respect to a workpiece, and an adhesion base for securing the electric drill apparatus to the workpiece. The annular cutter has a plurality of cutting blades comprised of cemented carbide tips fixed on its lower end, thereby it is capable of rotating at a high speed. The rotary shaft assembly has a rotating shaft which rotates in a direction different from that of a rotating shaft of the motor, thereby the drill apparatus has a low profile.